## EVRAZ Oregon Steel Rivergate Facility Riverbank Source Control Measure Implementation









#### Who Is EVRAZ?



#### **Environmental Fun**

Evraz in Portland is a proud sponsor of the Columbia Slough Watershed Council (CSWC) and over the years, has provided sponsorship of an annual Regatta - the largest one-day paddle In Oregon. The Regatta was designed to celebrate this local waterway and its recreational opportunities. Portland Energy and Environment Department employee, Debbie Deetz Silva and her toddler, Shu (pictured here) participated in the most recent Regatta, "Paddlers can travel east through a shaded wettand that is home to bald

eagles, deer, river offers, and fish," notes Silva, "Before and after paddling, participants can visit with local environmental and water based organizations and enjoy hands-on nature activities." Silva encourages her colleagues to participate in the Regatta this summer and would be happy to provide more Information to those who may be Interested. "The Regatta Is a celebration I look forward to each year. It's fun and amazing to share this experience with my family!"

Debble Deets Silva and her son enjoyed participating in the annual Regatta on the Columbia Slough.











## **EVRAZ Portland Steel Operations Today at Rivergate**

☐ Slab, Plate, Coil, and Pipe

















## **Rivergate Operations**

- EVRAZ
  - Rolling Mill
  - Pipe Mill

- Independent Contractors
  - Coating Mill
  - Cut-to-Length Facility

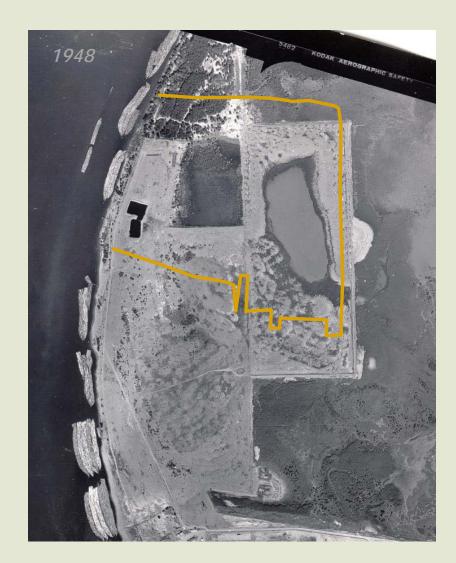




## Site History and Ownership

Port of Portland - 1942 to 1967

Gilmore Steel -1967 to 1987





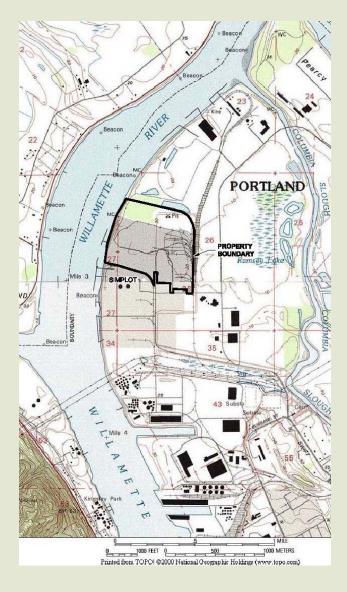
## Site History and Ownership

## Oregon Steel Mills - 1987 to 2007 Evraz Oregon Steel - 2007 to present





### **Evraz Oregon Steel**



### Site Details:

- **Active Steel Mill** 
  - Scrap-based until 2003
  - Steel slab imported from other facilities
- 145 acres
- Willamette River Mile 2 2.5
- Oregon Steel Mills enters into a June 2000 Voluntary Cleanup Agreement with DEQ





### Contaminants of Concern

#### PCBs

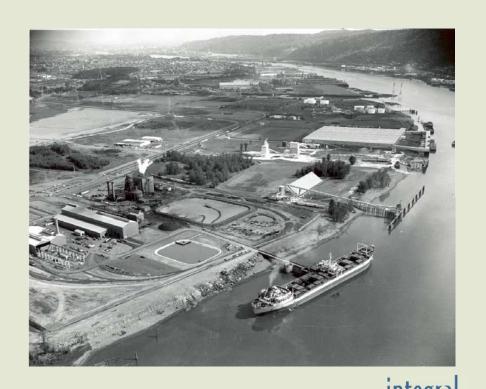
 Potential sources include: contaminated dredge fill, scrap shearing, historic oil sump, imported fill

#### Metals

- Slag is by-product of steel processing; used as fill
- Primary metal COPC: manganese (and arsenic)

#### PAH

- Former oil sump
- No further action







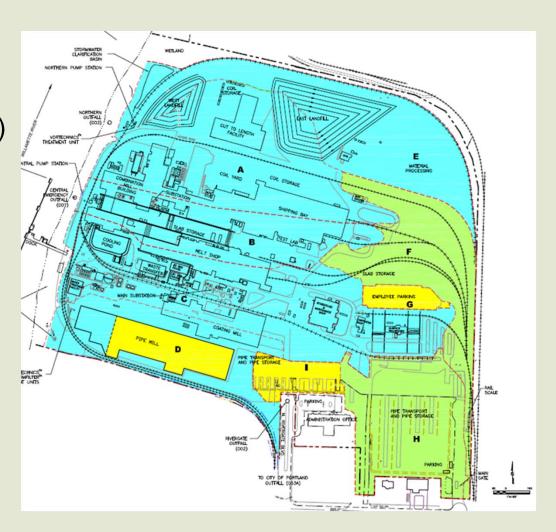
### **Upland Source Control**

- Joint Source Control Strategy: "Identify, evaluate and control sources of contamination that may affect the Willamette River..."
- In 2006, Evraz completed Source Control Evaluations
- Three pathways evaluated:
  - Groundwater (assessment largely complete)
  - Stormwater (in progress)
  - Riverbank (in construction)



### Stormwater Source Control - Drainage

- Blue: Northern Outfall (003)
  - 97 acres (91% of runoff)
  - End of pipe treatment
- Yellow: RivergateOutfall (002)
  - 9 acres (9% of runoff)
  - Treatment with BMPs
- Green: Infiltration







### Stormwater Source Control

- Low-level PCBs in many areas
- Active facility: limitations for BMPs
- Paving not practical
- End-of-Pipe treatment selected
- Over \$3.5 Million spent to date:
  - Most stormwater consolidated to one outfall
  - Clarification basin constructed
  - Turbine pumps installed to manage large storm
  - Smaller "workhorse" pumps installed to regulate flow







#### **Stormwater Source Control**

- Stormwater source control loading study in-process:
  - Rivergate Outfall (002) sampling complete
  - Northern Outfall (003) dry weather sampling complete
  - Northern Outfall (003) wet weather sampling in-process following installation of smaller "workhorse pumps"

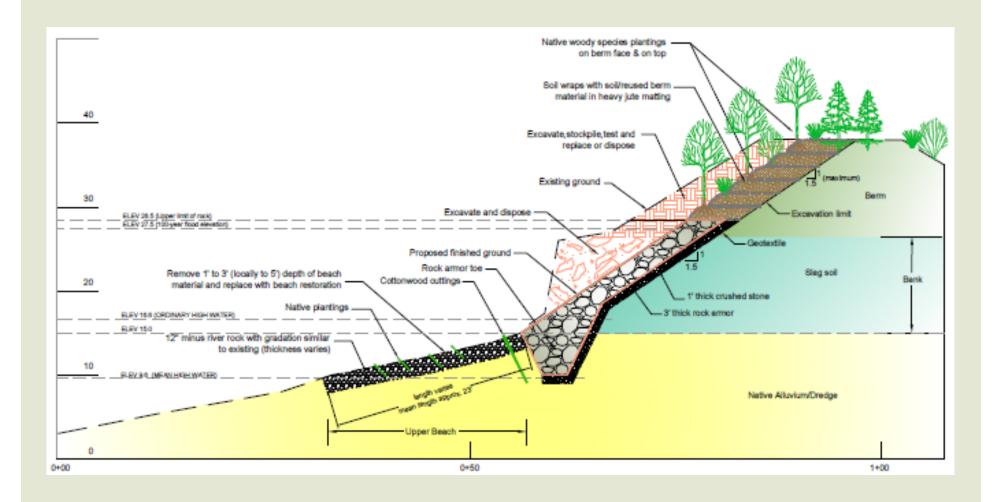


#### **Riverbank Source Control**

- Historical riverbank fill consists of slag/soil material containing PCBs and metals
- Potential for riverbank erosion during high flows
- 2006 SCE recommendation: stabilization capping with enhanced vegetation
- Footprint based on PCB and metals concentrations
- Beach removal included
- Habitat improvement through plantings



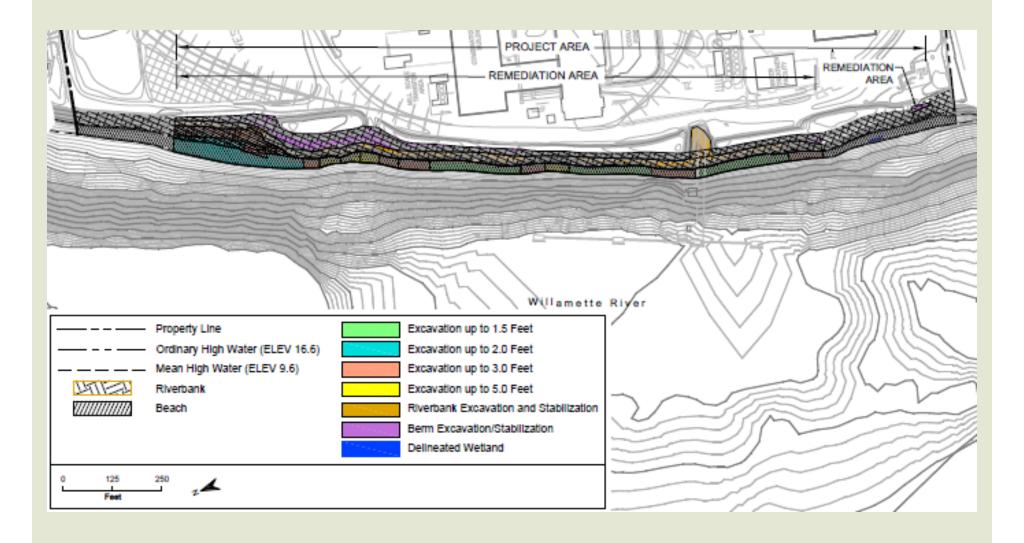
## Riverbank Source Control Measure Design







### Riverbank Project Area





### Riverbank Source Control Project Timeline

- Joint Permit Application submitted to agencies in April 2014
- Design modifications during mid-2014 included additional habitat on north end (north alcove)
- Permits issued in December 2014
- Construction commenced at the beginning of 2015 in-water work window (July 1, 2015)
- Removal, capping, and planting nearly 1,700 linear feet of shoreline (upper beach and riverbank) is ongoing



### Pre-construction: North/Central





### Pre-construction: North of Dock





### Pre-construction: South of Dock





19

### Pre-construction: North Alcove







## Construction: Project Area from Dock (Mid-August)





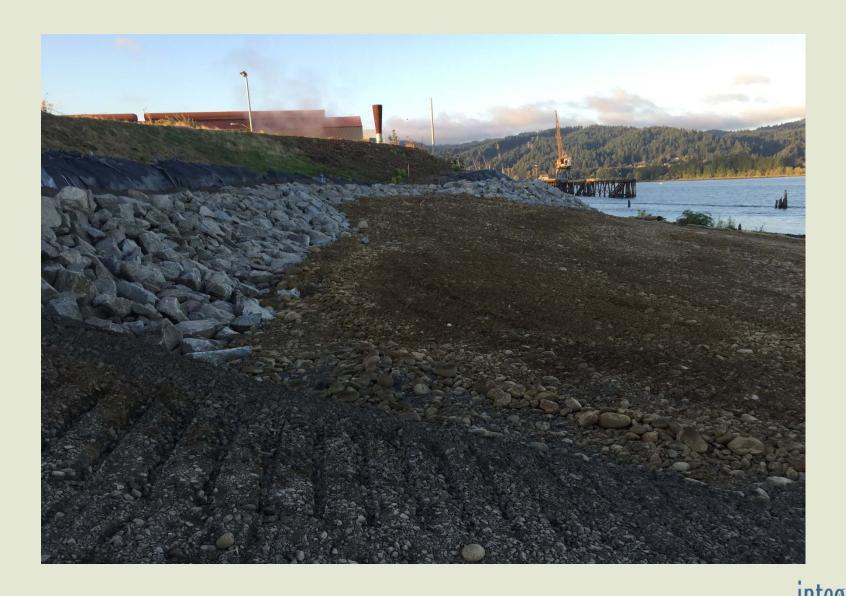


## Construction: North of Dock (Mid-August)





### Construction: North Alcove and Habitat Connection (Sept.)







# Construction: South of Dock (Mid-September)







## Construction: Armor and Beach Fill (Mid-September)





### Project Schedule

- Construction below Ordinary High Water: complete early October 2015
- Berm reconstruction: complete late-October 2015
- Planting beach and berm: late-2015 through early-2016
- Long-term monitoring and maintenance:
  - Vegetation monitoring
  - Easement and Equitable Servitude

